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(12) **United States Patent**  
**Perricone**(10) **Patent No.: US 6,500,857 B1**  
(45) **Date of Patent: Dec. 31, 2002**(54) **SUBCUTANEOUS MUSCLE TREATMENT  
USING ELECTRONIC STIMULATION AND  
TOPICAL COMPOSITIONS**(76) Inventor: **Nicholas V. Perricone**, 27 Coginchaug  
Ct., Guilford, CT (US) 06437(\*) Notice: Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 0 days.(21) Appl. No.: **09/931,616**(22) Filed: **Aug. 16, 2001**(51) **Int. Cl.**<sup>7</sup> ..... **A61K 31/385**; A61K 31/195;  
A61K 7/48; A61K 7/42(52) **U.S. Cl.** ..... **514/440**; 514/561; 514/669;  
514/474; 514/944; 514/785; D24/200; 424/401;  
424/59; 424/450(58) **Field of Search** ..... 514/440, 561,  
514/667, 474; 424/401, 59, 450; D24/200;  
D29/114(56) **References Cited****U.S. PATENT DOCUMENTS**

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Aging and sagging subcutaneous muscles are treated by first applying a composition containing at least one acetylcholine precursor and/or at least one compound exhibiting catecholamine activity to the overlying skin area, and then electronically stimulating the overlying skin area using electrical pulses in amounts sufficient to cause the subcutaneous muscles to contract. Preferred compositions contain from about 1% to about 10%, more narrowly from about 0.25% to about 5% by weight of an alkanolamine such as dimethylaminoethanol, the calcium salt of 2-aminoethanol phosphate or mixtures thereof and about from about 1% to about 10%, more narrowly from about 1% to 5% by weight of a compound exhibiting catecholamine activity such as tyrosine. Preferred electronic muscle stimulating devices deliver electrical pulses via electrodes in the fingertips of a compact device that fits on the hand.

**19 Claims, No Drawings**